

Regional Workshop on Performance-based Planning and Programming

Denver, Colorado - September 18, 2012

summary report

prepared for

**Federal Highway Administration
Office of Planning, Environment, and Realty**

in cooperation with

**Federal Transit Administration
Office of Planning and Environment**

prepared by

Cambridge Systematics, Inc.

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Workshop Summary

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) in cooperation with their planning partners, held a regional workshop on performance-based planning and programming at the Colorado DOT in Denver, Colorado on September 18, 2012. This workshop is one of several activities being conducted by FHWA and FTA in collaboration with the American Association of State Highway and Transportation Officials (AASHTO), the Association of Metropolitan Planning Organization (AMPO), the National Association of Regional Councils (NARC), the American Public Transportation Association (APTA), the National Association of Development Organizations (NADO), and planning partners including state Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and transit agencies to determine how to implement a performance-based planning and programming process. The workshop brought together practitioners from state DOTs, MPOs, regional organizations, and transit agencies from around the Mountain West region to:

- Discuss the performance measures they are currently tracking and how they are using these measures in decision making;
- Discuss challenges to implementing performance-based planning and programming within their agencies;
- Discuss the potential value and challenges of a national approach to performance-based planning and programming; and
- Identify critical action items for implementing performance-based planning and programming within their agencies.

1. WORKSHOP PURPOSE AND ORGANIZATION

Transportation agencies at all levels of government have come to appreciate that performance management and performance-based planning and programming represent best practice for the transportation community. Performance management has the potential to provide high quality information to support decision makers and to improve the accountability of investments.

This workshop enabled participants to expand on the following topics:

- Share examples of performance measurement and management initiatives currently underway and how these measures may be used in decision making;
- Express concerns and challenges to implementing performance-based planning and programming efforts within their agencies;

- Discuss the potential opportunities and challenges presented by a national approach to performance-based planning and programming; and
- Identify critical action items for implementing performance-based planning and programming within their agencies.

This summary report documents the key findings and discussions that emerged from the Mountain West regional workshop.

Workshop Organization

The workshop was organized as an all day event that brought together agencies from across the Mountain West region. The event included the following components:

- An introduction to the workshop, discussion of workshop objectives, and description of the day's activities by the facilitators.
- A welcome from the Colorado DOT, the host agency, and a presentation by the manager of the newly established Performance and Policy Analysis Unit.
- A panel of transportation and transit professionals from Utah that described performance based partnerships, initiatives, and tools currently in use in the state.
- Presentation of a framework for performance-based planning and programming built on best practices conducted by transportation agencies throughout the U.S.
- A discussion among all participants on the opportunities and challenges to implementing performance-based planning and programming both within individual agencies and at the national level.
- Breakout groups for attendees to share what their own agencies are doing to implement performance-based planning and programming techniques.

2. CURRENT PRACTICES IN THE MOUNTAIN WEST

This section highlights some of the practices in performance-based planning and programming currently implemented by state DOTs, MPOs, and transit agencies that participated in the workshop. The Colorado DOT and a panel of representatives from the Utah DOT, the Wasatch Front Range Council, and the Utah Transit Authority shared their experiences with performance based approaches with the group. A brief summary of each presentation is presented here.

Colorado DOT, Performance Measurement at Work

Sandi Kohrs, Colorado DOT Planning and Performance Branch Manager welcomed all participants to the workshop. Mrs. Kohrs highlighted the enterprise management approach the agency is currently pursuing and how the

agency is actively linking performance measures within their long range planning effort. Scott Richrath of the Colorado DOT's Performance and Policy Analysis Unit briefly presented on the state's evolving approach to measuring performance across the agency. Mr. Richrath focused on the use of performance measurement tools and a performance based planning framework to support the state long range plan and statewide transportation goals. Key points from the presentation included:

- CDOT's senior management and advisory committee set aspirational goals through policy documents. These goals intend to describe what the Transportation Commission seeks to deliver to the public, regardless of resources. CDOT then measures actual performance against those goals through annual performance reports and newly developed technical tools to track whether the agency is falling short or gaining ground.
- CDOT is also focusing on performance-based planning components within the current update to the statewide long range transportation plan for 2040. This plan will include desired statewide outcomes that are linked to corridor-level goals and strategies, which are in turn intended to be aligned with MPO performance measures and CDOT's internal measures. Together these measures will align with Federal funding programs and priorities.
- The agency is adopting a multi-asset management system, or enterprise approach to performance measurement that tracks a wide variety of measures in pavement, bridge, maintenance/level of service, fleet maintenance, and intelligent transportation solutions strategies.
- This enterprise approach will leverage technology and web-based reporting platforms to enable comprehensive reporting, ensure integrity, better integrate across the agency, and endure staff turnover.
- Reports can be produced in this platform that track spending in budget program categories against reported performance measures. For example, safety program expenditures can be tracked against fatalities or VMT.
- One challenge to this approach is that while safety outcomes and spending can be charted together this doesn't indicate a correlation and may not be statistically rigorous. Many agencies will face challenges identifying variables that are directly associated with DOT actions and those that the agency may not have any control over. CDOT recognizes this but believes it is important to show progress toward those things that the public cares about.

Utah Department of Transportation, Technologies to Advance Performance Based Planning Approaches

John Thomas, Director of Planning for the Utah DOT introduced the workshop panelists from Utah and described how the state, MPOs, and transit agencies are working together. He also introduced the major theme of the panel which will

focus on tools, processes, and projects currently being applied in the state. Some key points from the presentation included:

- UDOT sponsored the development of UPlan, a web-based interactive GIS mapping and data-sharing tool created to improve data management and collaboration across the agency.
- UPlan provides a collaborative, common, and integrated software program that helps organize data internally at the agency, as well as enabling the public and other stakeholders to view and use that data. Where data may have been produced once and then buried, or not shared across divisions, it can now be used to produce GIS maps on the fly and used by others for analysis and communications.
- For example, the state's 2040 unified transportation plan can be viewed, leveraged, and reported on – right from the web. This system allows for environmental, safety, performance, and condition measures to be viewed and reports created, which allows the agency and partners to leverage multiple data sources in performance measurement and prioritization processes.
- Importantly, the ability to visualize and view data spatially, even in 3D in Google Earth has enhanced the agency's ability to communicate with the Transportation Commission, state legislators, stakeholders, and the public. Technology has replaced the traditional three-ring binders for distributing and displaying information. In doing so, UDOT found that UPlan enhanced the level of interest and engagement among Commission members and public stakeholders.
- AASHTO is sponsoring a demonstration pilot program so that 14 participating states may work with the UPlan tool and learn from Utah's experiences. These states will learn how this framework can work for their agency and explore technologies and applications for making data more widely available. A national mapping project will also seek to integrate data from Central Federal Lands and other FHWA divisions.

Wasatch Front Range Council, A Common Framework for Regional Performance Measures

Ned Hacker, Planning Manager with the Wasatch Front Range Council spoke to the MPO perspective of working with the Utah DOT and stakeholders to further integrate performance measures into planning activities. Some key points from the presentation included:

- Wasatch Front Range Council (WFRC) has a long history incorporating performance measures into regional plans and policies. The MPOs new 2040 long range plan continues the practice of evaluating progress toward the region's 2005 growth principles with more specific goals and performance indices. The 2040 plan includes common measures that are integrated into

Regional Transportation Plan evaluation criteria and are linked to regional land use and visioning goals, transit agency goals, MPO scenario planning goals, state, and new federal goals. A matrix was displayed showing these linkages.

- The MPO is working with the Utah DOT and Utah Transit Authority (UTA) to align goals and projects and to identify common performance measures. A Performance Management Advisory Committee was established that includes UDOT, UTA, the state's four MPOs, and other stakeholders. This group is working to mesh the region's broad growth principles with more detailed performance measures.
- Transportation partners will face challenges reaching consensus on which measures best support which goals. Even more challenging are measures that can be tied explicitly to project evaluation and program monitoring to measure success of regional planning.

Utah Transit Authority, Performance Management Approaches

Hal Johnson, Project Development Manager with the Utah Transit Authority provided an overview of the agency's current performance measurement tools and examples of how measurement improved services and aided decision making. Some key points from the presentation included:

- The Utah Transit Authority implemented a performance management system known as the Service Standards Initiative. This effort uses performance measures to better understand drivers of effectiveness and to examine system improvements.
- The initiative focuses on a series of broad, but meaningful measures (e.g. reliability, customer service, seat availability standards, on-time performance, and land use) to track trends over time and compare efficiency and identify needed improvements in service.
- The agency utilizes this data-driven management approach to inform decision makers, communicate with stakeholders, and interact with employees. For example, tracking on-time performance of buses in real time did not lead directly to service improvements until the agency worked to communicate that data to drivers and provided on-board schedule alerts. Those efforts lead to direct improvements in level of service.
- UTA can also compare cost per boarding measures to other major systems across the country and other key metrics to communicate the efficiency of service and identify areas for improvement.
- Without service standards in place and consistent accountability and decision making abilities UTA would not have been equipped to improve service, achieve results, focus less in operations, and invest more in major capital projects.

- The Service Standards Initiative tool has provided to be useful for communicating with elected officials and local governments. The agency is now looking into an expanded effort to measure and evaluate land use and urban design principles when planning capital investments.

Other Best Practices of Workshop Participants

In addition to speakers and panelists, workshop participants identified a number of other applications of performance-based planning and programming within their own agencies. When queried, about half of attendees indicated their agency used some sort of performance based approach, but of those that did, relatively few believe that this information is used in decision-making processes.

- Capital Metro in Austin, Texas indicated that they instituted a performance measurement process in response to community and leadership concerns. The agency has also institutionalized a pre-post evaluation of expected level of service outcomes which has been welcomed by the Board and helped improve trust with leadership and stakeholders.
- The Omaha MPO, MAPA, is trying an approach of identifying common measures that are to be included with project submittals. If data collection costs are captured in submitted project totals, it is more likely that better, more consistent, and more reliable measures will be available.
- The Regional Transportation Commission in Southern Nevada indicated that it has successfully implemented robust data collection and an automated reporting process for incidents and travel volumes and mobility measures. The organization uses this information to plan investments and determine if projects are likely to mitigate delay or further goals.
- The Maricopa Association of Governments in Arizona established a regional framework for performance measurement that included congestion management process (CMP) criteria in project applications. The organization is encountering coordination challenges and limited resources, but sees opportunities in other areas and is now acquiring private speed data to fulfill performance measurement needs.
- Other MPOs and states indicated that they tracked and reported other common infrastructure measures (e.g., pavement and bridge conditions), but that those data were not often used in prioritization or project selection decisions.
- A few participants indicated that they collected performance measures at small scales, but without a coordinated or integrated approach because of a lack of resources.

3. KEY WORKSHOP THEMES

Facilitators engaged workshop attendees in a broad ranging discussion of the challenges and opportunities presented by performance based planning approaches. Following large group discussion, smaller breakout sessions provided participants the opportunity to further identify significant issues and to share lessons learned. The following major themes emerged from these discussions.

Many Agencies are Using Performance Measures Today

One overriding finding from the workshop was that most agencies are using performance measures within their planning process in one form or another. Most of the state DOTs were focused on asset management, while most of the MPOs had a focus on congestion management. Participants generally felt that they had a basis from which to build. A number of participants observed that they are trying to put transportation goals and objectives, and performance, into a broader context that also recognizes broader economic, social and environmental goals.

Challenges to Implementation Remain

Overall, participants recognized performance-based planning and programming as good management practice, but noted that additional guidance is needed to really implement it as a day-to-day practice of most transportation agencies. Participants identified a range of potential challenges to implementing performance-based planning and programming, including:

- **Identifying measures.** Participants acknowledged that defining clear and useful measures is easier for some performance areas than for others. Traditional measures of highway or bridge performance are relatively well established, while non-traditional areas such as livability or sustainability or broad social and economic consideration can be quite difficult to assign measures to. These themes are often examined in long-range planning approaches, but many organizations have less experience doing so from a performance based planning perspective. Building consensus among stakeholders around common measures was also considered important but sometimes difficult to accomplish.
- **Recognize differences.** Attendees pointed to the need to consider rural and urban areas differently in several contexts. Primarily, national target setting processes must recognize the unique nature and needs of systems in urban and rural areas. Secondly, organizations and transit providers in predominantly rural areas face greater resource and technical capacity limitations implementing and managing performance measure systems. Finally, performance measures must be selected that work for both urban and rural areas so as not to penalize smaller systems or rural roadways.

- **Linking planning and programming.** Several participants noted existing disconnects in their own organizations between current measurement practices and decision making processes, while others noted the potential for enhanced measurement to close those gaps. To make a real connection, criteria will have to be developed to map state and national goals to performance measures that are used in state and regional selection processes. While political involvement in project selection is unlikely to disappear, performance measurement may make the implications of political choices more clear. Measures must be identified that can make a difference and impact key areas within the timeframe of a STIP – as elected officials and decision makers need to know that the decisions they made and projects they prioritized are making a difference.
- **Communication is critical.** Performance measures alone may not be effective tools unless they and their purpose are communicated to leadership and the public. Attendees noted that public relations component of performance measurement was often overlooked or undervalued. Measures can be helpful in educating the public and informing decision makers, and when integrated with social media or new technologies can help improve engagement and involvement in planning processes. Performance measures when communicated effectively help make tradeoffs and choices very clear to stakeholders.
- **Overcoming technical complexities.** Many organizations noted that they face technical challenges collecting and managing data. Common data concerns included the availability of data at different geographic scales, developing consistent trend datasets, the validity and integrity of public and private data, and the use of qualitative and quantitative sources. Common management concerns expressed included difficulties changing internal agency culture, integrating multiple existing data systems, and working with new technologies to compile and report measures. It was noted that expanded technical assistance in data management areas may be necessary to ease implementation efforts.
- **Evaluating tradeoffs.** Participants recognized that performance based planning processes will increasingly emphasize resource allocation decisions that involve tradeoffs between various program areas, such as preservation, safety, mobility, and others. Investment in one area may affect performance in another or an investment in one program area may impact multiple performance goals. Similarly, understanding among staff and leaders that national performance measures will not be the only measures used by state and regional entities to aid decision making and investment allocations will also be helpful when making resource decisions.

Establishing a National Program

Workshop attendees were cautiously optimistic about the rulemaking outcomes and eventual implementation of the performance-based planning approach

embedded within MAP-21. Several key points were raised on the forthcoming national program, including:

- Rulemaking must be transparent, open, and provide opportunities for input and feedback.
- Implementation must be consistent across the country and interpreted similarly by FHWA divisions.
- Approach should not place undue constraints on local priorities and choices.
- National measures should result in meaningful outcomes and the national vision and purpose of the program should be communicated.
- National measures could mesh or support existing performance management efforts already occurring at the state or local level to the extent possible.
- Expand technical assistance efforts to aid organizations in developing consistent, valid, and comparable data collection and management systems.

Participants offered input and ideas for a successful national program. Some of these ideas included:

- **Ask for input.** Participants observed that the details of a national performance management program will be established primarily through the agency rulemaking process, currently in progress. This process should provide opportunities for input and feedback from all stakeholders.
- **Learn from others.** Suggestions were made that existing lessons learned and the cautions and challenges raised in this workshop should be taken into account when designing the national approach.
- **Be flexible.** There are aspects of MAP-21 that will likely have to be prescriptive, but other areas may offer broad guidance to enable states and stakeholders to implement and pursue within their own framework. If a clear and consistent vision is established at the national level, it can still allow individual states and regions to determine appropriate measures, targets, and planning approaches to address regional and local priorities. Participants noted that if federal goals are too loosely defined, then federal performance reporting is likely to be too general to be of value.
- **Provide support.** Attendees did express concerns with the technical complexities of data collection and management. It was noted that while areas such as bridge and pavement performance measurement were well developed and supported by tools and common measures, other areas such as safety, freight, and economic vitality measurement techniques may benefit from additional technical assistance.

4. NEXT STEPS

Advancing performance-based planning and programming requires a collaborative and concerted effort from all groups involved in the planning process. Some of the key next steps identified by workshop participants included:

- **Emphasize collaboration.** Implementing performance-based planning and programming will require breaking down institutional barriers, both within a single agency and among agencies that may or may not commonly work together. This includes cooperative planning processes specifically, but also coordinating agency operations and initiatives, where appropriate. The panel for this workshop provided an excellent example of collaboration on performance measurement approaches between the state DOT, multiple MPOs, transit agencies, and a variety of other civic and business stakeholders. Collaborative approaches will both ease and enhance performance based planning.
- **Tell the story.** Performance-based planning and programming is founded on quality data and information, but it is also critical to “tell the story” of what is possible and what can be delivered at different funding levels. More broadly, whatever the performance results, there will be a need to explain the results in simple language, and the explanation in many cases will go beyond just funding considerations. Telling the story will require writing performance reports that speak to the public at large, and that leverage technologies and data visualization to better tell the transportation story – particularly when advocating for necessary investments.
- **Link transportation in context of broader objectives.** Successfully communicating the value of transportation requires making clear connections to broader societal priorities such as economic growth, quality of life, livability/sustainability, public health, and other far-reaching issues. Developing measures that help link transportation to these issues will be important. Focusing on making these connections will also help the public and decision makers understand the value of transportation investments. One participant suggested that performance measures help agencies speak to the business community and may increase collaboration and partnerships between the private and public sectors.
- **Share best practices.** Successful performance management will grow from agencies learning from one another. Providing a mechanism to identify, share, and expand upon existing best practices will go a long way to helping agencies implement the national approach embedded within MAP-21.

Mountain West Workshop Participants

First Name	Last Name	Agency
Matt	Hardy	AASHTO
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Erik	Cempel	Cambridge Systematics
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Enoch	Needham	Capital Area MPO
Sreyoshi	Chakraborty	Cheyenne MPO
Nancy	Olson	Cheyenne MPO
Sandi	Kohrs	Colorado DOT
Debra	Perkins-Smith	Colorado DOT
Scott	Richrath	Colorado DOT
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Steve	Rudy	Denver Regional Council of Governments
Robert	Spotts	Denver Regional Council of Governments
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Harlan	Miller	FHWA
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Francine	Shaw Whitson	FHWA
Egan	Smith	FHWA
Ed	Stillings	FHWA Arizona
Kelly	Lund	FHWA Utah
Victor	Austin	FTA
Mark	Bechtel	FTA
Dominique	Paukowits	FTA
Michael	Grant	ICF
Mike	Brienzo	Lincoln MPO
Monique	de los Rios-Urban	Maricopa Association of Governments
Evan	Schweitz	Metro Transit Authority of Omaha
Larry	Hopper	METRO Transit Oklahoma City
Shawn	Seager	Mountainland Association of Governments
Kendall	Tonjes	Nebraska Department of Roads
Sondra	Rosenberg	Nevada DOT
Elias	Archuleta	New Mexico DOT
Dolores	Gallegos	New Mexico DOT
Aaron	Fodge	North Front Range MPO

First Name	Last Name	Agency
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Peggy	Thurin	Texas DOT
John	Thomas	Utah DOT
Hal	Johnson	Utah Transit Authority
Christopher	Evilia	Waco MPO
Ned	Hacker	Wasatch Front Regional Council
Ted	Knowlton	Wasatch Front Regional Council
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Erika	Mazza	Transportation Authority